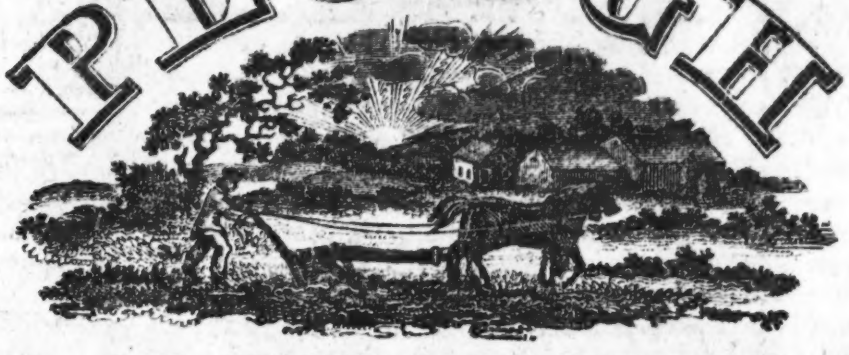
THE PLOUGH BOY.



AND JOURNAL OF THE BOARD OF AGRICULTURE.

BY SOLOMON SOUTHWICK.

"He that observeth the wind shall not sow; and he that regardeth the clouds shall not reap."—BUT—"He that tilleth his land shall have plenty of bread."—*Ecclesiastes.*

Vol. I. *ALBANY: SATURDAY, FEBRUARY* 26, 1820. No. 39.

ORIGINAL.

Board of Agriculture.

IN GENERAL COMMITTEE, Jan. 24, 1820.

The following address was reported, agreed upon, and ordered for publication.

ADDRESS

Of the General Committee of the Board of Agriculture of the state of New-York, to the Officers and Members of the County Agricultural Societies.

GENTLEMEN,

You will perceive in the pages which accompany this address, that the board of agriculture, which was created by the legislature of the past year, has convened at the capitol, in conformity to the law, and has appointed a general committee to act for it during the recess of the board. One of the duties which has been imposed upon that committee, is to publish an address to the officers and members of the county agricultural societies. In the execution of that duty, the general committee now present to your consideration some of those sentiments and opinions which are deemed appropriate to the present conjuncture of the farming interest, and to the interests of the community at large.

Since the political independence of this country was achieved, perhaps there has been no period in its history more remarkable than the present one. For a long series of years, the most enterprising citizens of this state, seduced into that vortex of speculation, which was created by the late disturbed state of the world, have succeeded in dazzling the eyes and understandings of their fellow-countrymen, by the vastness of their undertakings, and by the apparent wealth they drew from them This precocious prosperity has deceived perhaps the whole of us: And we may almost be said to have been the willing dupes of a splendid and feverish dream. We have imagined, that the accumulation of riches, the enormous, increased value of the real estate of our cities, the luxury of our merchants, the high price of domestic produce, and the profuse plentifulness of money, were in fact the natural fruits of the intrinsic resources of the country. It was this fallacious opinion which induced upon us many extravagant habits. The people of this country, so ingenious and calculating in all the details of human business, appear now to have been positively intoxicated with their situation. It is indeed remarkable, that scarce any one should have been found, in so intelligent a community, sagacious enough to look into the general relations of human business, and predict the result. And this can only be explained, by supposing that we were all too sanguine, and had, in some measure, mixed our fortunes up in the general lottery; for a lottery it has proved, and a favoured few only have obtained the prizes.

A return to the sober pursuits of life will be attended with much individual mortification and disappointment, and with some suffering: but this is a country where no person can be long in want; it is a land flowing with milk and honey; and those feelings of dissatisfaction will be soon compensated in the more substantial enjoyments which invariably accompany every vocation that is rationally pursued. We shall probably also soon learn to look calmly at what has past, and consider it as a wholesome lesson, somewhat necessary to repress the exuberant energies peculiar to ourselves, and to lead us to a condition of mind less speculative, but promising happiness of a more permanent kind. One effect, however, which has resulted from this delusive system, is greatly to be lamented: it has caused us almost entirely to overlook agriculture, that vocation which belongs naturally to man, and which is remarkably imposed upon the people of this state by their situation; and the effect has been to lose to the state the productive labour of a whole generation, and to that generation, the possession of tranquil views and moderate habits There is no estimating a loss of this kind; for it is impossible to imagine how far the unprofitable habits that have been induced upon the last, may be transmitted to succeeding generations. The welfare of a country depends more upon the character than the number of its inhabitants. It is not possible for a country to be either prosperous or glorious, unless the people are true to all the exigencies of the situation in which providence has placed them. Where men are found in the uniform tenor of their duty, they cannot be ignorant that they are so; and the contentment which this knowledge imparts to them, is a privilege of their nature. It is in this sense that virtue is its own reward. A contented people cannot but be prosperous, and a prosperous and just people, know always how to be glorious.

If agriculture be the most independent, innocent and useful of all human pursuits, it is a sufficient motive for regret, that a whole people, whose dearest interests it touched in the nicest manner, should have conspired to neglect it, should have joined in the chase of visionary objects, unavailable to human happiness, and have overlooked the very art which gives bread and clothing to the whole mass of mankind.—But this extravagance has reached its limit, and unfortunately has left the country almost exhausted in the effort. Neglected and despised agriculture is now called upon to restore the country to its pristine vigour, to give bread and clothing to the poor, labour to those who seek it, and an innocent and profitable occupation to those who are desirous of it. This is the voice of the people at large. The government itself feels this truth; and the legislature of the last year, to its imperishable honour, was the first to redeem the farming interest from the unjust humiliation into which it had fallen, by patronising it in a judicious and munificent manner.

The future population of the state of New-York, the facility of its subsistence, and its consequent moral condition, depend much upon the character which is now to be given to its agriculture: and the interests of the present generation, seriously affected as they have been by the general relations of human business, so imperfectly understood, furnish powerful motives for a combination of exertions to enlighten the mass of the people upon the most interesting of all subjects: for a successful agriculture will teach the people, that independence and happiness are not to be procured through the speculative pursuit of objects, of whose intrinsic value they are ignorant; but through the substantial and abundant possession of the agricultural products with which they have surrounded themselves by their industry and skill. The man whose independence arises from honest industry, soon perceives that the blessing cannot be truly enjoyed unless he deals fairly and justly with his

neighbour, and walks humbly and devoutly before God. Industry is the source of all earthly comfort, and leads to the exercise of every virtue.

Extensive as the agricultural operations of this state have for many years been, immense as is the mass of our annual produce, yet it is perfectly true that we are but in the infancy of the art; for the particular principles upon which husbandry, as a science, rests, do not naturally develope themselves in that first stage of cultivation, where, with few exceptions, we have been contented to remain until this moment. We have been so much occupied with subduing our forests, and wrestling with the earth for the fruits she has reluctantly given to our strength, that we have scarcely adverted to the willing capacity inherent in nature to render equal fruits to skill and physical power. The products are thus doubled: and if at this present moment it is matter of serious concern to the farmer, that his bushel of wheat will no longer repay the labour he has expended upon it, let him console himself by believing, what he confidently may believe, that the earth will give him two bushels where she has almost denied him one, if he will make himself perfectly acquainted with his own business.—What has been the history of Great-Britain, may at some future day become applicable to the condition of the fine country in which we live. In Great-Britain the farmer can afford to pay as many dollars annual rent for an acre of ground, as would purchase the fee simple here. This fact speaks volumes, and volumes of reproach to ourselves; for the enhanced price of agricultural products, in that country, do not reconcile this monstrous difference. The tythes, the poor rates, and many other burdens we are happily exempted from, recompensate for that advantage. This difference is principally to be found, and the sooner we confess it the better, in our want of skill, industry and economy. The character of our agriculture may be summed up in a few words. We subdue the forests, and exhaust the fine vegetable mould; as soon as the roots are sufficiently decayed to admit of cultivation, we plough, and sow, and reap, till the land is exhausted; and then we either fly to new forests, or remain and drag on a cheerless existence, struggling with debts, and laying the blame of our condition on bad crops, worn out land, a cold season, and inclement climate. This ought not to be, and must not be. Our farmers must be taught that their prosperity depends more upon themselves than upon seasons and climates; that there is a governing principle in rural economy, which, if they keep a steady eye upon it, will ensure to them the abundant enjoyment of the substantial comforts of a country life. That the earth is not, like many of the fruits it bears, pregnant with wholesome juices applicable to the wants of man, created to be exhausted, and then abandoned; but that it is constituted of elementary bodies, each of which, in its separate state, is naturally barren; that these, when mixed together in the proportion which nature has determined, form the natural soils which are found upon the surface of the globe; that the loosening of these soils in a judicious manner, and exposing them to the beneficial influence of the sun and the atmosphere, induces fertility; hence plants, which are the natural food of animals, spring up from the bosom of the earth. The increase and condition of animals necessarily depends upon the relative abundance of vegetable food, and upon these combined means the number and prosperity of mankind must likewise depend. Farmers should not only be often reminded that they exercise the natural vocation of man, being the purveyors of food for the human race; but that they are continually acting in obedience to a divine law, for the earliest command which our first parents received, was "to fill the earth, and subdue it." This injunction, then, from God, to fill the earth, is to be accomplished by subduing it: and the accomplishment of this great intention of our creator, will be accelerated or retarded by the quantity of human labour that is properly expended or reserved in the great business of subduing the earth, which is agriculture itself. It is obvious, then, that at every step which a farmer takes, whether it be marked by industry or indolence, he is, in truth, fulfilling or neglecting a command from our creator; and apart from all other circumstances of profit or loss, this is a consideration deserving the attention of serious men.

The general committee have somewhat enlarged upon this particular view of the subject, because in addressing a religious and intelligent community, they have felt it incumbent upon them to point out immediately, that man is not called to this his natural business of subduing the earth, by the sole consideration that his personal comforts depend upon it, but that he is moved to it by an obligation paramount to all considerations of self—by the command of his creator, who, for some wise purpose, inscrutable to us, has determined that this earth shall be filled, and that by our subduing it. Labour, then, which is considered by many as an unworthy and servile occupation, is, in fact, the great business of our lives; and all those factitious and easy conditions in society, which are thought happy because they exempt men from the necessity of labour, are to be counted amongst those unprofitable refinements which have retarded the advancement of mankind to substantial happiness.

The general committee also have been led to dwell with more satisfaction upon considerations of this nature, from an earnest hope that much good may be done to that part of the community which is at present separated from the farming interest. Agriculture has, from a concurrence of circumstances, been hitherto somewhat despised, and held by many in low estimation. Happily these prejudices have yielded, in the present deranged state of human business, to the necessity of considering the intrinsic resources of every avocation; and that fertile soil and favourable climate which the great state of New-York possesses conspicuously amongst her other resources, are beginning to attract the attention of many who have hitherto relied upon professional and commercial pursuits.—Many persons and families are pondering with themselves upon the expediency of removing into the country, and of exchanging the hurried and expensive habits of a city life, for the mild, rural pleasures and invaluable tranquillity which retirement affords.—The embarrassments too of commerce will probably determine many land proprietors to devote themselves henceforward to the developement of their best interests, which have hitherto languished only because they have been neglected.

To those whom adverse circumstances may lead to such a change of habits, as is comprehended betwixt a town and country life, it may be observed, that they can scarce settle in any part of this rich state, but they will find rational neighbours, who are not ashamed to take their bread from the earth, and who will be ready to extend to them every act of kindness.

But to those resolute young men, who, having discovered that there is no longer room for them in the professions and in commerce, are not afraid to look to the ample bosom of nature for their support, the committee would advise, that, having completed their education, (for education is a great protection and solace in the indolent hours of the country) they place themselves with some opulent farmer, for three years, to learn the practical and fundamental principles of his art: these they can learn at his expense, and can repay him for his care by their industry and fidelity: at the expiration of that period, they can, if they have a moderate capital to begin with, establish themselves with great prospect of success. Some capital, however, is necessary: to own a bare farm, and nothing but that, is only an embarrassment of a different kind: a moderate capital is essential to put it in operation, and make it productive. It is the want of that capital which has caused agriculture, as an art, to be so long stationary in this country.—The accession of every intelligent family and person to the country, is a substantial acquisition. The great capital of this state is land, and its proprietors will secure their own comforts, and add to the power of the state, by making that capital productive. By multiplying and spreading intelligent persons over the face of the state, the condition and happiness of society will be rapidly improved; and experience will teach them what it has already taught to others, that it is not only possible to be truly contented in the country, but to have no wish for change.

The general committee, in recurring to their more immediate object of addressing the officers and members of the county agricultural societies, repeat their opinion, that the cause of the contrast betwixt the condition of agriculture in Great-Britain and in the state of New-York, is principally to be sought in our want of skill, industry and economy.

The institution of a board of agriculture, having for its object to elicit the disclosure of all the resources of which the art is susceptible, by legislative encouragement, it is presumed that if the board, and the societies in connection with it, co-operate with perfect sincerity to this end, that much of the first reproach will soon be wiped away. In regard to the want of industry and economy, the committee will briefly observe, that it would be a vain thing to advise the owner of the farm himself to be industrious and economical. If he does not know that industry and economy are necessary to his success, poverty and ruin will soon make him feel it; and such a man must inevitably yield his place to a wiser one.

There are, however, certain relaxations and indulgences connected with labour, which, in the

opinion of the committee tend, to retard the prosperity of the farming interest. Among these, and that which demands the most immediate attention, is the degrading practice of drinking ardent spirits. There is not the least necessity for their use in any part of the operations of a farmer; and in an agricultural point of view, they are productive of no effect but that of prematurely exhausting the natural strength of the unfortunate persons to whom they are given. Every farmer should have a brewing vat capable of making three or four barrels of ale: upon particular occasions this innocent beverage may be availed of with just satisfaction by the liberal farmer; for the barley and hops of which it is made, are raised on his own land.

In regard to economy, the general committee would remark, that the farmer who understands and practices his own business, in the right way, is a true economist: his farm should produce every thing necessary to sustain life in a comfortable and respectable manner; and he should surround himself with every thing that he wants, by his own industry. At a period when the products of the earth will barely repay the farmer for the labour he has expended upon them, this provident system, which is real economy, should be scrupulously adhered to: a departure from it is the commencement of new embarrassments: and the condition of a farmer is the only one possessing all these resources: his fields furnish him with bread and flax, his orchard, his garden, his bees, and his maple trees, yield him cider, currant wine, honey and sugar; and the assistance he is obliged to require from the mechanical arts, he repays with his surplus produce. The wool and the flax which our country produces in the greatest abundance, and of the best quality, require nothing but additional skill, to be formed into manufactures as neatly finished as those which are imported from foreign countries, and which we purchase at twice the price we might produce them for ourselves. This skill let us endeavour to arrive at; and let it be a principal object with the county societies, to create a spirit of emulation amongst our countrymen, to excel in domestic manufactures, by liberally gratifying them with honourable distinctions. The good sense and talents of the daughters of America may safely be relied upon: it is our province to give a wise direction to their powers. It is of the first importance, therefore, that parents should bring their children up under a proper sense of the value of real economy, without which there can be no substantial independence. Children, who have been brought up wisely, will honour and cherish their parents, and will love the land where they first saw the light; their efforts will be cheerfully added to those of the father, and gradually the farm will assume the condition of a garden. The farmer, then, will possess an estate rich and extensive enough to maintain himself, his children, and his children's children: there will be no necessity for his sons to abandon him, because a hundred acres will not support two families: there will be no necessity for his offspring to plunge into the remote wilderness of the vast western world, to seek for that bread which they unwisely think their native soil denies them; they will then remain true to the parents who have faithfully brought them up from their infancy; and it will be for their interest to discharge this first pious debt of gratitude: for they never will find in that western world, a stronger soil, a purer air, more abundant markets, or facilities to arrive at them, than in the unrivalled territory of which the people of the state of New-York may justly boast.

The board of agriculture looks with much anxiety to the personal efforts and intelligence of the respective presidents and officers of the county societies, to aid it in the accomplishment of the great object for which it has been constituted. It must be obvious to the officers here alluded to, that the power of the board to diffuse that useful kind of knowledge, upon which the welfare of the people of this great state depends, must arise in a great measure from the perfect ability and willingness of intelligent persons connected with the farming interest, to aid the effort now about to be made, to raise the agricultural interests of this state to the consideration they are entitled to, as the true source upon which all other human pursuits must rely for success.

Affected as this country is by the embarrassments common to the civilized world, it is a source of consolation almost exclusively our own, that agriculture is one of the resources we have scarce availed ourselves of to the present moment; for it is true, that owing to the deceptive pursuits which have led us away from the natural avocation of man, a successful and systematic agriculture is unknown amongst us, although we possess a country blessed by every circumstance essential to sustain one. It is upon this great resource that the eyes of this country are now bent; and intimately concerned as we all are in the result, it becomes every man to lend his assistance. Without a general combination of exertions, much of the great object which now engages the attention of the board of agriculture, must necessarily remain unaccomplished; and it is to the common interest of every member of the community, that the board appeals for the assistance it demands. The members of the board of agriculture, upon whom this great duty is devolved, have accepted of the charge, in the full confidence, that they are to be assisted by the ability of the community at large. Receiving no compensation themselves, and guided by no motive save that of advancing the prosperity of the state, they have a right to expect a prompt and disinterested attention from every person connected with the landed interest. But to the presidents and officers of the county agricultural societies, they frankly state, that they consider the acceptance of these offices, in the societies which partake of the annual bounty of the state, to have brought those officers under a pledge to co-operate with the board of agriculture, in every wise and expedient measure, the execution of which does not require an inconvenient portion of their time and ability. By such a judicious combination of exertions, on the part of the officers of the county societies, as the board intends to propose, it will have the power, annually, as from a common centre, to diffuse a light that will gradually penetrate all the recesses of the agricultural interest. If the communications betwixt the board and county officers, are systematically established and persevered in, the most advantageous results cannot fail to be soon produced; for not only will the condition of agriculture be changed, but a mass of information will be collected, which will, under arrangements, present a most interesting picture to ourselves and to foreign countries, of the intrinsic resources of the state. And the value of the great example which this powerful state will have then established, will be deeply felt, and imitated throughout the rest of the Union. This object, then, must interest all; for it aims at securing the comfort and independence of the people of the state of New-York, and enlarging the resources and power of the state itself.

The board of agriculture would again deeply impress upon the officers of the county societies, the indispensable necessity of thus co-operating with the board to the accomplishment of this great end. It must be obvious, that if the presidents of these societies neglect to maintain an active communication with the board of agriculture, the board will possess no other means of acquiring the information so manifestly important to the welfare of the state; and in such an event, which the board does not contemplate as probable, it would be a painful duty on the part of the board, in their annual report and volume, to mark any particular county, as having excluded itself, by the culpable neglect of its officers, from its proper share of the advantages and credit in which the others would participate, and to which the board of agriculture would not fail to give all the weight, to which the talents, zeal and fidelity of their officers would give them fair claims.

The board, therefore, not only recommends to the officers of the county societies, a true and effectual co-operation on their part, but that they use exertions to prevail upon intelligent men, residing in their counties, to assist in diffusing every kind of useful information, and in giving a wise direction to the agricultural improvements which will be introduced.

The board also avails itself of this opportunity to invite all intelligent persons, in every walk of life, to address, from time to time, communications to the secretary of the board, upon all matters connected with the interests of agriculture, and which may add to the stock of useful knowledge. Curious observations upon the habits of those insects, from which many of the vegetable diseases are supposed to arise; interesting facts respecting the diseases of animals, with new methods of prevention and cure, are of the utmost importance in the study of rural economy, and will receive the most serious attention from the board.

It is respectfully suggested to the clergy, that it is in their power to contribute much to this great object, by exhorting upon private, as well as more solemn occasions, an earnest attention to those habits of economy and industry, which the board now ventures to recommend. These gentlemen, from their intimate connection with their parishioners, possess invaluable opportunities, not only to encourage them to overcome old prejudices, but to form a just estimate of the progress of the moral and physical improvements of which their interests are susceptible. It has frequently occurred, also, that the clergyman's garden has been the pattern, of which many districts have

availed themselves to their advantage; and it is to be lamented that horticulture, and the improvement of apiaries, are rich sources of comfort and profit, which a great portion of the farmers of the interior have greatly neglected. The board hopes that these resources will be numbered amongst the principal objects that are to engage the attention of the county societies.

In concluding this address, the board of agriculture again urges upon the presidents and officers of the county societies, the importance of the regular and systematic manner of the communications now asked of them. It is the intention of the board, not only to collect every kind of useful information, and to diffuse it in the most extensive manner, but to combine and arrange all the features of this deeply interesting subject, into a form sufficiently methodical, to constitute a perspicuous record of its transactions, and which may exhibit an interesting picture of all the resources of the state, in their annual progress.

It is under this view, that they have, for the present, determined to furnish the county societies, at the expense of the board, with printed schedules, where the required information is arranged under items which embrace most of the features important to agriculture and rural economy.

Number 1, is a schedule, which is to comprehend a detailed explanation, as required by law, of all the circumstances attending the cultivation of the grain crops, which have received premiums from the county societies. The items are enumerated in the left margin, and a corresponding blank left opposite, for the required information. On the right margin, is a column, where the expense of cultivation and rent, may be perceived at the foot, for every acre, if the real expense attending every item, be regularly carried out. And as the last item requires the estimated value of the crop; the expense of cultivation, and the amount in value of the produce, will be found contrasted to each other.

Number 2, is a schedule upon the same plan, for neat cattle, and live stock.

These two schedules, thus reduced into form, cannot but give great facility to the execution of the duties which the law absolutely requires of the officers of county societies. And the committee suggest, that any remarkable circumstances disclosed in the cultivation of crops, or in the treatment of live stock, on the part of an unsuccessful candidate, should be preserved, and the schedule containing the information transmitted to the board of agriculture. It is requested, also, that all communications, and particularly the returns from the county societies, be transmitted to the board immediately after the cattle shows, that the general committee may have the necessary time to prepare the annual report to the board of agriculture.

Number 3, is a schedule containing nine columns: the first is for the number of the items which have obtained premiums, or of any remarkable crop or animal, belonging to an unsuccessful candidate: the second is for the name of the item: the third for the quantity of the item: the fourth for the quantity of produce: the fifth for the farmer's name: the sixth for his residence: the seventh the amount of premium awarded: the eighth for the estimated expense: the ninth for the estimated value of the produce. It is recommended to the county societies to possess a book with similar columns, and to place all the circumstances in them, in the order now mentioned. They will thus have a perspicuous record of their operations, and a progressive view of the various improvements which may arise, in the most compact form. A faithful return of this schedule is also greatly important to the arrangements of the board of agriculture.

Number 4, is intended to comprehend the principal features, not only of the agriculture of each county, but of all its intrinsic resources.—The board will be careful to furnish the presidents of societies with a few copies of this schedule, in a short time, that they may have sufficient leisure to fill them up; and they are requested in the most respectful and earnest manner, not only to complete these schedules, with valuable information, collected with as much precision as circumstances may admit of, but also to furnish a blank schedule to any intelligent person, from whom just expectations may be formed of acquiring important knowledge. On this point, the agriculturist, the manufacturer, the mechanist, the geologist, may each be advantageously consulted. This schedule, also, it is hoped will regularly accompany the returns from the county societies.

In attempting to impose upon the officers of the county societies this additional charge, which may be thought perhaps beyond the contemplation of the law, the board of agriculture can only appeal to the best interests of every individual in the community for a justification. A mature deliberation upon this important subject has convinced the board of agriculture, that a remarkable period has arrived, of which, if proper advantages be taken, new and exhaustless sources of happiness and real wealth, may be opened to the present and future generations of this state: and the persons upon whom the present direction of this great subject is devolved, being determined to fulfil the duty they are charged with, with as much prudent ability as they possess, and with perfect disinterestedness upon all occasions, feel that they may safely call, and they now do call upon the most intelligent of their fellow-countrymen, to unite with them in the furtherance of these views, without expectation of any other reward, than the pleasing satisfaction which arises from being instrumental in scattering prosperity and contentment through our common country.

For the General Committee,
STEPHEN VAN RENSSELAER,
President of the Board.

SELECTIONS.

Agricultural Chemistry,

No. XXVIII.

BY HUMPHREY DAVY.

ORIGINAL FORMATION OF SOILS.

Soils appear to have been originally produced in consequence of the decomposition of rocks and strata. It often happens that soils are found in an unaltered state upon the rocks from which they were derived. It is easy to form an idea of the manner in which rocks are converted into soils, by referring to the instance of *soft granite*, or *porcelain granite*. This substance consists of three ingredients, quartz, feldspar, and mica. The quartz is almost pure siliceous earth, in a crystalline form. The feldspar and mica are very compounded substances; both contain silica, alumina, and oxide of iron; in the feldspar there is usually lime and potassa; in the mica, lime and magnesia.

[168] When a granitic rock of this kind has been long exposed to the influence of air and water, the lime and the potassa contained in its constituent parts are acted upon by water or carbonic acid; and the oxide of iron, which is almost always in its least oxided state, tends to combine with more oxygene; the consequence is, that the feldspar decomposes, and likewise the mica; but the first the most rapidly. The feldspar, which is as it were the cement of the stone, forms a fine clay; the mica partially decomposed mixes with it as sand; and the undecomposed quartz appears as gravel, or sand of different degrees of fineness.

As soon as the smallest layer of earth is formed on the surface of a rock, the seeds of lichens, mosses, and other imperfect vegetables which are constantly floating in the atmosphere, and which have made it their resting place, begin to vegetate; their death, decomposition and decay, afford a certain quantity of organizable matter, which mixes with the earthy materials of the rock; in this improved soil more perfect plants are capable of subsisting; these in their turn absorb nourishment from water and the atmosphere; and after perishing afford new materials to those already provided; the decomposition of the rock still continues; and at length by such slow and gradual processes, a soil is formed in which even forest trees can fix their roots, and which is fitted to reward the labours of the cultivator.

In instances where successive generations of vegetables have grown upon a soil, unless part of their produce has been carried off by man, or consumed by animals, the vegetable [169] matter increases in such a prorportion, that the soil approaches to a peat in its nature; and if in a situation where it can receive water from a higher district, it becomes spongy, and permeated with that fluid, and is gradually rendered incapable o supporting the nobler classes of vegetables.

Many peat-mosses seem to have been formed by the destruction of forests, in consequence of the imprudent use of the hatchet by the early cultivators of the country in which they exist: when the trees are felled in the out-skirts of a wood, those in the interior, exposed to the influence of the winds, and having been accustomed to shelter, become unhealthy, and die in their new situation; and their leaves and branches gradually decomposing, produce a stratum of vegetable matter. In many of the great bogs in Ireland and Scotland, the larger trees that are found in the out-skirts of them, bear the marks of having been felled. In the interior, few entire trees are found; and the cause is, probably, that they fell by gradual decay; and that the fermentation and decomposition of the vegetable matter was most rapid where it was in the greatest quantity.

Lakes and pools of water are sometimes filled up by the accumulation of the remains of aquatic plants; and in this case a sort of spurious peat is formed. The fermentation in these cases, however, seems to be of a different kind. Much more gaseous matter is evolved; and the neighbourhood of morasses in which aquatic vegetables decompose, is usually aguish and unhealthy; whilst that of the true peat, or peat formed on soils originally dry, is always salubrious.

[170] The earthy matter of peat is uniformly analogous to that of the stratum on which they repose; the plants which have formed them must have derived the earths that they contained from this stratum. Thus in Wiltshire and Berkshire, where the stratum below the peat is chalk, calcareous earth abounds in the ashes, and very little alumina and silica. They likewise contain much oxide of iron and gypsum, both of which may be derived from the decomposition of pyrites, so abundant in chalk.

Different specimens of peat that I have burnt, from the granitic and schistose soils of different parts of these islands have always given ashes principally siliceous and aluminous and a specimen of peat from the county of Antrim, gave ashes which afforded very nearly the same constituents as the great basaltic stratum of the county.

Poor and hungry soils, such as are produced from the decomposition of granitic and sandstone rocks, remain very often for ages with only a thin covering of vegetation. Soils from the decomposition of limestone, chalks, and basalts are often clothed by nature with the perennial grasses; and afford, when ploughed up, a rich bed of vegetation for every species of cultivated plant.

OF THE STONEY MATTERS FROM WHICH SOILS HAVE BEEN FORMED.

Rocks and strata from which soils have been derived, and those which compose the more interior solid parts of the globe, are arranged in a certain order; and as it often happens that [171] strata very different in their nature are associated together; and that the strata immediately beneath the soil contain materials which may be of use for improving it, a general view of the nature and position of rocks and strata in nature, will not, I trust, be unacceptable to the scientific farmer.

Rocks are generally divided by geologists into two grand divisions, distinguished by the names of *primary* and *secondary*.

The primary rocks are composed of pure crystalline matter, and contain no fragments of other rocks.

The secondary rocks, or strata, consist only partly of crystalline matter; contain fragments of other rocks or strata; often abound in the remains of vegetables and marine animals; and sometimes contain the remains of land animals.

The primary rocks are generally arranged in large masses, or in layers vertical, or more or less inclined to the horizon.

The secondary rocks are usually disposed in strata or layers, parallel, or nearly parallel to the horizon.

The number of primary rocks which are commonly observed in nature are eight.

First, *granite*, which, as has been mentioned, is composed of quartz, feldspar and mica; when these bodies are arranged in regular layers in the rock, it is called *gneis*.

Second, *micaceous schistus*, which is composed of quartz and mica arranged in layers, which are usually curvilineal.

[172] Third, *sienite*, which consists of the substance called hornblende and feldspar.

Fourth, *serpentine*, which is constituted by feldspar and a body named resplendent hornblende; and their separate crystals are often so small as to give the stone a uniform appearance: this rock abounds in veins of a substance called *steatite*, or *soap rock*.

Fifth, *porphyry*, which consists of crystals of feldspar, embedded in the same material, but usually of a different colour.

Sixth, *granular marble*, which consists entirely of crystals of carbonate of lime; and which, when its colour is white, and texture fine, is the substance used by statuaries.

Seventh, *chlorite schist*, which consists of chlorite, a green or grey substance somewhat analogous to mica and feldspar.

Eight, *quartzose rock*, which is composed of quartz in a granular form, sometimes united to small quantities of the crystalline elements, which have been mentioned as belonging to the other rocks.

The secondary rocks are more numerous than the primary; but twelve varieties include all that are usually found in these islands.

First, *grauwacke*, which consists of fragments of quartz, or chlorite schist, embedded in a cement, principally composed of feldspar.

Second, *siliceous sandstone*, which is composed of fine quartz or sand, united by a siliceous cement.

Third, *limestone*, consisting of carbonate of lime, more compact in its texture than in the granular marble; and often abounding in marine exuvia.

[173] Fourth, *aluminous schist*, or *shale*, consisting of the decomposed materials of different rocks cemented by a small quantity of ferruginous or siliceous matter; and often containing the impressions of vegetables.

Fifth, *calcareous sandstone*, which is calcareous sand, cemented by calcareous matter.

Sixth, *irone stone*, formed of nearly the same materials as aluminous schist, or shale; but containing a much larger quantity of oxide of iron.

Seventh, *basalt*, or *whinstone*, which consists of feldspar and hornblende, with materials derived from the decomposition of the primary rocks; the crystals are generally so small as to give the rock a homogeneous appearance; and it is often disposed in very regular columns, having usually five or six sides.

Eighth, *bituminous* or *common coal*.

Ninth, *gypsum*, the substance so well known by that name, which consists of sulphate of lime; and often contains sand.

Tenth, *rock salt*.

Eleventh, *chalk*, which usually abounds in remains of marine animals, and contains horizontal layers of flints.

Twelfth, *plum-pudding stone*, consisting of pebbles cemented by a ferruginous or siliceous cement.

To describe more particularly the constituent parts of the different rocks and strata will be unnecessary; at any time, indeed, details on this subject are useless, unless the specimens are examined by the eye; and a close inspection and compa-

[174] rison of the different species, will, in a short time, enable the most common observer to distinguish them.

The highest mountains in these islands, and indeed in the whole of the old continent, are constituted by granite; and this rock has likewise been found at the greatest depths to which the industry of man has as yet been able to penetrate; micaceous schist is often found immediately upon granite; serpentine or marble upon micaceous schist; but the order in which the primary rocks are grouped together is various. Marble and serpentine are usually found uppermost; but granite, though it seems to form the foundation of the rocky strata of the globe, is yet sometimes discovered above micaceous schist.

The secondary rocks are always incumbent on the primary: the lowest of them is usually grauwacke; upon this, limestone or sandstone is often found; coal generally occurs between sandstone or shale; basalt often exists above sandstone and limestone; rock salt almost always occurs associated with red sandstone and gypsum. Coal, basalt, sandstone, and limestone, are often arranged in different alternate layers, of no considerable thickness, so as to form a great extent of country. In a depth of less than 500 yards, 30 of these different alternate strata have been counted.

The veins which afford metallic substances, are fissures more or less vertical, filled with a material different from the rock in which they exist. This material is almost always crystalline; and usually consists of calcareous spar, fluor spar, quartz, or heavy spar, either separate or together. The

[175] metallic substances are generally dispersed through, or confusedly mixed with these crystalline bodies. The veins in hard granite seldom afford much useful metal; but in the veins in soft granite, and in gneis, tin, copper, and lead are found. Copper and iron are the only metals usually found in the veins in serpentine. Micaceous schist, sienite, and granular marble, are seldom metalliferous rocks. Lead, tin, copper, iron, and many other metals are found in the veins in chlorite schist. Grauwacke, when it contains few fragments, and exists in large masses, is often a metalliferous rock. The precious metals, likewise iron, lead, and antimony, are found in it; and sometimes it contains veins or masses of *stone coal*, or coal free from bitumen. Limestone is the great metalliferous rock of the secondary family; and lead and copper are the metals most usually found in it. No metallic veins have ever been found in shale, chalk, or calcareous sandstone; and they are very rare in basalt and siliceous sandstone.

In cases where veins in rocks are exposed to the atmosphere, indications of the metals they contain may be often gained from their superficial appearance. Whenever fluor spar is found in a vein, there is always strong reason to suspect that it is associated with metallic substances. A brown powder at the surface of a vein, always indicates iron, and often tin; a pale yellow powder, lead; and a green colour in a vein denotes the presence of copper.

[176] It may not be improper to give a general description of the geological constitution of Great-Britain and Ireland. Granite forms the great ridge of hills extending from Land's End through Dartmoor into Devonshire. The highest rocky strata in Somersetshire are grauwacke and limestone.—The Malvern hills are composed of granite, sienite, and porphyry. The highest mountains in Wales are chlorite schist, or grauwacke. Granite occurs at mount Sorrel in Leicestershire. The great range of the mountains in Cumberland and Westmoreland, are porphyry, chlorite schist, and grauwacke; but granite is found at their western boundary. Throughout Scotland, the most elevated rocks are granite, sienite, and micaceous schistus. No true secondary formations are found in South Britain, west of Dartmoor; and no basalt south of the Severn. The chalk district extends from the western part of Dorsetshire, to the eastern coast of Norfolk. The coal formations abound in the district between Glamorganshire and Derbyshire; and likewise in the secondary strata of Yorkshire, Durham, Westmoreland, and Northumberland. Serpentine is found only in three places in Great-Britain; near Cape Lizard, in Cornwall; Portsoy, in Aberdeenshire; and in Ayrshire. Black and grey granular marble is found near Padstow, in Cornwall; and other coloured primary marbles exist in the neighbourhood of Plymouth. Coloured primary marbles are abundant in Scotland; and white granular marble is found in the Isle of Sky, in Assynt, and on the banks of Loch Shin, in Sutherland: the principle coal formations in Scotland are in Dumbartonshire,

[177] Ayrshire, Fifeshire, and on the banks of the Brora, in Sutherland. Secondary limestone and sandstone are found in most of the low countries north of the Mendip hills.

In Ireland there are five great associations of primary mountains; the mountains of Morne, in the county of Down; the mountains of Donegal; those of Mayo and Galway, those of Wicklow, and those of Kerry. The rocks composing the four first of these mountain chains are principally granite, gneis, sienite, micaceous schist, and porphyry. The mountains of Kerry are chiefly constituted by granular quartz, and chlorite schist. Coloured marble is found near Killarney; and white marble on the western coast of Donegal.

Limestone and sandstone are the common secondary rocks found south of Dublin. In Sligo, Roscommon, and Leitrim, limestone, sandstone, shale, iron stone, and bituminous coal are found. The secondary hills in these counties, are of considerable elevation; and many of them have basaltic summits. The northern coast of Ireland is principally basalt; this rock commonly reposes upon a white limestone, containing layers of flint, and the same fossils as chalk; but it is considerably harder than that rock. There are some instances, in this district, in which columnar basalt is found above sandstone and shale, alternating with coal. The stone coal of Ireland is principally found in Kilkenny, associated with limestone and grauwacke.

FARTHER REMARKS ON SOILS.

[178] It is evident from what has been said concerning the production of soils from rocks, that there must be at least as many varieties of soils as there are species of rocks exposed at the surface of the earth; in fact there are many more. Independent of the changes produced by cultivation and the exertions of human labour, the materials of strata have been mixed together and transported from place to place by various great alterations that have taken place in the system of our globe, and the constant operation of water.

To attempt to class soils with scientific accuracy, would be a vain labour; the distinctions adopted by farmers are sufficient for the purposes of agriculture; particularly if some degree of precision be adopted in the application of terms. The term sandy, for instance, should never be applied to any soil that does not contain at least 7-8 of sand; sandy soils that effervesce with acids should be distinguished by the name of calcareous sandy soil, to distinguish them from those that are siliceous. The term clayey soil should not be applied to any land which contains less than 1-6 of impalpable earthy matter, not considerably effervescing with acids. The word loam should be limited to soils, containing at least 1-3 of impalpable earthy matter, copiously effervescing with acids. A soil to be considered as peaty, ought to contain at least 1-2 of vegetable matter.

In cases where the earthy part of a soil evidently consists of the decomposed matter of one particular rock, a name derived from the rock may with propriety be applied to it. Thus, if a fine red earth be found immediately above decomposing

[179] basalt, it may be denominated basaltic soil. If fragments of quartz and mica be found abundant in the materials of the soil, which is often the case, it may be denominated granitic soil; and the same principles may be applied to other like instances.

In general, the soils, the materials of which are the most various and heterogenous, are those called alluvial, or which have been formed from the depositions of rivers; many of them are extremely fertile. I have examined some productive alluvial soils, which have been very different in their composition. The soil which has been mentioned page 163, as very productive, from the banks of the river Parret, in Somersetshire, afforded me eight parts of finely divided earthy matter, and one part of siliceous sand; and an analysis of the finely divided matter gave the following results:

360 parts of carbonate of lime,
25 „ alumina,
20 „ silica,
8 „ oxide of iron,
10 „ vegetable, animal, and saline matter.

A rich soil from the neighbourhood of the Avon, in the valley of Evesham, in Worcestershire, afforded me three fifths of fine sand, and two fifths of impalpable matter; the impalpable matter consisted of

35 alumina,
41 silica,
14 carbonate of lime,
3 oxide of iron,
7 vegetable, animal, and saline matter.

[180] A specimen of good soil from Tiviotdale, afforded five sixths of fine siliceous sand, and one sixth of impalpable matter; which consisted of

41 alumina,
42 silica,
4 carbonate of lime,
5 oxide of iron,
8 vegetable, animal, and saline matter.

A soil yielding excellent pasture from the valley of the Avon, near Salisbury, afforded one eleventh of coarse siliceous sand; and the finely divided matter consisted of

7 alumina,
14 silica,
63 carbonate of lime,
2 oxide of iron,
14 vegetable, animal, and saline matter.

In all these instances the fertility seems to depend upon the state of division, and mixture of the earthy materials and the vegetable and animal matter; and may be easily explained on the principles which I have endeavoured to elucidate in the preceding part of this Lecture.

In ascertaining the composition of sterile soils with a view to their improvement, any particular ingredient which is the cause of their unproductiveness, should be particularly attended to; if possible, they should be compared with fertile soils in the same neighbourhood, and in similar situations, as the difference of the composition may, in many cases, indicate the most proper methods of improvement. If on wash-

[181] ing a sterile soil it is found to contain the salts of iron, or any acid matter, it may be ameliorated by the application of quick lime. A soil of good apparent texture from Lincolnshire, was put into my hands by Sir Joseph Banks as remarkable for sterility: on examining it, I found that it contained sulphate of iron; and I offered the obvious remedy of top dressing with lime, which converts the sulphate into a manure. If there be an excess of calcareous matter in the soil, it may be improved by the application of sand, or clay.—Soils too abundant in sand are benefited by the use of clay, or marle, or vegetable matter. A field belonging to Sir Robert Vaughan, at Nannau, Merionethshire, the soil of which was a light sand, was much burnt up in the summer of 1805: I recommended to that gentleman the application of peat as a top dressing. The experiment was attended with immediate good effects; and Sir Robert last year informed me that the benefit was permanent. A deficiency of vegetable or animal matter must be supplied by manure. An excess of vegetable matter is to be removed by burning, or to be remedied by the application of earthy materials. The improvement of peats, or bogs, or marsh lands, must be preceded by draining; stagnant water being injurious to all the nutritive classes of plants. Soft black peats, when drained, are often made productive by the mere application of sand or clay as a top dressing. When peats are acid, or contain ferruginous salts, calcareous matter is absolutely necessary in bringing them into cultivation.—When they abound in the branches and roots of trees, or when

[182] their surface entirely consists of living vegetables, the wood or the vegetables must either be carried off, or be destroyed by burning. In the last case their ashes afford earthy ingredients, fitted to improve the texture of the peat.

The best natural soils are those of which the materials have been derived from different strata; which have been minutely divided by air and water, and are intimately blended together: and in improving soils artificially, the farmer cannot do better than imitate the processes of nature.

The materials necessary for the purpose are seldom far distant; coarse sand is often found immediately on chalk; and beds of sand and gravel are common below clay. The labour of improving the texture or constitution of the soil, is repaid by a great permanent advantage; less manure is required, and its fertility insured; and capital laid out in this way secures for ever, the productiveness, and consequently, the value of the land.

THE PLOUGH BOY.

ALBANY: SATURDAY, FEBRUARY 26, 1820.

BOARD OF AGRICULTURE.

The Address of the Board of Agriculture, which occupies so large a portion of this day's paper, will shew that the General Committee have not been idle; and that all that is necessary to make the Board answer the great purposes for which it was instituted, is, the liberal countenance and encouragement of the legislature, as it progresses in the performance of the duties and obligations imposed upon it. To make room for this Address, we have been obliged to omit the MORAL PLOUGH BOY, No. 23, and several articles from correspondents, which were previously intended for this number.

The following article, from the pen of TIMOTHY PICKERING, is gratefully received, and promptly inserted. Mr. Pickering, after sustaining the highest office in the gift of the federal government, has retired to cultivate the earth; not to enjoy ease with dignity, or *otium cum dignitate*, as the ancients used to say; but to labour with his hands on that soil, which, as one of the veterans of the revolution, he fought to make free. Though their be not ease, there is indeed true dignity in this condition of a man who has made so conspicuous a figure in the annals of his country. But our aim in this brief introduction is, to suggest to other gentlemen of intelligence and science, who cultivate the ground as Mr. PICKERING does, that we should be equally obliged to them, if now and then, they would afford us a communication on any subject connected with husbandry and rural affairs. It may not be amiss to add, that we think there is great propriety, on such occasions, in affixing the real signature of the writer, as Mr. P. has done, especially when facts are stated, for which it is interesting to the reader to know who is responsible.

Mr. SOUTHWICK,

The learned author of the Treatise on Agriculture, in Section XI. published in your paper No. 36, discoursing on grassess, mentions *Timothy*; and says that "in Europe it is called Herd-grass, cats-tail, or *phleum pratense*, its botanical name; but as the plant is of Yankey origin, we have chosen to retain the Yankey denomination." Dr. Elliot of Connecticut, who in the last century, wrote several essays on field-husbandry, in his third essay, printed in 1751, says "There are two sorts of grass, which are natives of the country, which I should recommend; these are Herd-Grass, (known in Pennsylvania by the name of Timothy Grass;) the other is Fowl Meadow, sometimes called Duck-Grass, and sometimes Swamp-wire-grass. It is said that Herd-grass was first found in a swamp in Piscataqua, [Portsmouth, New-Hampshire] by one Herd, who propagated the same."—It is a fact, that it is now known among the farmers, generally in Massachusetts, and I believe throughout New-England, only by the name of *Herd's grass*. From New-England I have supposed the seed was carried to Pennsylvania, and there, or in the three lower counties, now the state of Delaware, being cultivated by a person whose surname was Timothy, the grass received his name; and under that name, was sent from Philadelphia to England. In such English books on agrieulture, as have fallen in my way, it is uniformly called Timothy, or Cats-tail. The last name is very proper, the shape of the head resembling a cat's tail, being biggest at its base, and tapering regularly to its top. With the like propriety the Meadow-fox-tail Grass has obtained its name; its head smaller at its base, swells thence towards its middle, and tapers to its top—like a fox's tail.

The Fowl-Meadow grass mentioned by Dr. Elliot, appears to be a species of *Fiorin*, (agrostis stolonifera;) for says the Doctor in his fourth essay, "In a former essay I mentioned the strange and peculiar properties of Fowl-Meadow-grass, that it will hold out to be in season for cutting, from the beginning of July till some time in October. This I wondered at; but viewing some of it attentively, I think I have found the reason of it. When it is grown about 3 feet high, it then falls down, but does not rot like other grass when lodged. In a little time after it is thus fallen down, at every joint it puts forth a new branch: Now to maintain this young brood of suckers, there must be a plentiful course of sap conveyed through the main stem, or straw; by which means the grass is kept green, and fit for mowing all this long period." The Doctor adds, "whether this young growth from the joints be owing to the horizontal position of the straw, or whether it is a confirmation of that doctrine, that the joints of plants are seed-vessels, I leave to naturalists to determine."—The celebrated Fiorin, first cultivated and recommended by Dr. Richardson in Ireland, and now, there and in Great-Britain, admitted to deserve the exalted character he ascribed to it; he says is in its best condition for mowing, for hay, in the month of October. Perhaps its great value, above all other grasses, for low and rich ground, might have been ascertained in the U. States, if we had obtained the kind cultivated by Dr. Richardson—the broad leaved Fiorin—Agrostis stolonifera latifolia. He says that botanists speak of forty sorts; his attention was confined to one of them.

T. PICKERING.

Wenham, Mass. Feb. 11, 1820.

FOR THE PLOUGH BOY.

ALBANY RECEIPT FOR CURING HAMS.

To a pound of salt, add an ounce of salt-petre; pound and mix them: then add as much molasses as will make them into a paste. Rub the hams well with the paste, and pack them close, laying them the flesh side upwards. After they have lain a few days, draw the pickle from the bottom of the cask and pour it on the top of the meat. Repeat this operation every day, and after they have lain a fortnight, repack them, putting those that were on the top at the bottom. Use the pickle as before, until the hams are sufficiently penetrated by the materials; after which they must be hung up by the thick end and smoked with Hickory. In cutting the hams, take care to cut at least two inches below the knee joint; lest the juice should ooze out while smoking. When cured, put each piece, early in March, into a bag made of sail cloth, and hang them in a dry place.

COMPTROLLERS REPORT.

Of this interesting document our limits will only enable us to give the following general statement.

Funds of the state, exclusive of 970,000 acres of land, yet unsold, and of the funds appropriated for common schools, and for the promotion of literature,	$3,500,754
The funds appropriated for common schools, amounts to	1,229,076
Those for the promotion of literature,	132,529
The yearly revenue of the state, exclusive of what is derivable from lotteries, is	782,564
During the 11 months ending on the 30th Nov. 1819, there was received into the treasury,	1,215,438
Appropriations during that time,	1,210,908
Balance in the treasury, on 30th Nov. last, not otherwise appropriated,	32,620

For the great western and northern canals, and for common schools &c. funds have been particularly appropriated.

The expenses of the government for the 11 months last mentioned, have been as follows—pay to officers of Government $65,000. To the Legislature, $95,000. State-Prisons, $60,000. Indian annuities, $18,000. Paid to Sheriffs, 11,000. For printing 7000. Commissary's department, $5,000. To Brigade Inspectors, and County Clerks, $5 000. Courts Martial, &c. $15,000. Miscellaneous expense, $20,000. Bounties for destroying wolves, $10,000. Donation to the academy of Delaware, $6,000. Interest on the public debt, $103,000.

A tax has for two years past, been laid on all property in the state, at the rate of one mill for every dollar in valuation. This tax, the comptroller states, will be necessary to be continued, in order to meet all the expenses of the state for the ensuing year.

From the New-York Messenger.

Mr. Scott.—Interested in all that tends to the improvement of the education of our youth, we have read with much pleasure several numbers on that subject, signed PATER. The writer seems justly to appreciate the advantages of a solid and radical education, and to lash with no sparing hand, the folly of parents, and the barefaced quackery of scholastic pedagogues. As in the corporeal system, so in the mental, when diseases appear, and have grown strong by neglect of remedies, the knife must perform the operation, without which dissolution follows.

That education is now universally considered an object of vital importance, not only to the

prosperity and happiness of nations, it needs no prophet to tell; that it has undergone a total change for the better in its character, from the ability, talent and respectability, enlisted in its cause, is admitted by all; and while those who have degraded the profession have been compelled to retire, those who were fitted to be entrusted with the duties which it imposes, have been warmly supported by a liberal and high minded public.

An impulse, by the united exertions of our ablest preceptors, has been given to the moral and mental improvement of youth, which, like action and re-action, has excited a reciprocal attention on the part of the public. Colleges, schools, and academies, are receiving the fostering hand of statesmen and philosophers, and when the founders and supporters of these institutions shall have been numbered among the dead, they will stand, the proud monumeuts of the wisdom of the American people—of not a half century's existence as a nation—the wonder and admiration of the world.

More, perhaps, has been done in the ten last years to benefit our schools, than in the preceding fifty. It is owing to the ability now engaged, the awaked attention of the public, and the great and philosophic improvements made in our school books. There is no surer criterion of radical progress in the scholastic profession, than systematic and scientific elementary books, predicated on the analysis of mind, and the labours of the best writers of the age, and acted upon by instructors. That we have such books is well known; and what adds to their merit is, that our scientific teachers have generally adopted them in their schools.

We refer to the American School-class books, written by Messrs. ALBERT and JOHN W. PICKET. The code consists of several, beginning with the Spelling-book, and gradually progressing to the Juvenile Expositor, containing the principles of our language, elucidated in the clearest manner. These works have received so much of public approbation, as to induce a belief, that they will, in a short time, become general in this country. In mentioning the School-class books, it is not intended to make invidious comparisons between them and others; but there is one thing in them which strikes us very forcibly: namely, the principle on which they are founded, and which in a subsequent number, we shall explain. Its solidity has been universally admitted; and it has for its authority, the names of Quintillian, Bacon, Walker, Johnson, Locke, Steuart, and Reid.

While we speak in terms of just and high-merited praise of our English instructors generally, let us not forget those who are engaged in teaching the Latin, Greek, and French languages.—Perhaps, few cities of our union can exhibit so many elegant scholars, devoted to the inculcation of the principles of those tongues, as the city of New-York. It is by the united exertions of preceptors, and the enlightened part of the community, that this large and opulent metropolis, is to be made the seat of science and learning.

When time will permit, we shall make a few particular remarks on the system of education generally pursued, and lay before the public the name of those teachers who stand highest in public estimation. AMICUS DOCTRINÆ.

Weekly Summary.

We have the pleasure of receiving a paper lately established in Rhode-Island entitled "Manufacturers' and Farmers' Journal, and Providence and Pawtucket Advertiser," edited by William E. Richmond, Esq. The paper is much devoted to the manufacturing and agricultural interests, and from the samples we have had of it we think it affords very fair promise of respectability as an intelligent and useful organ of public information. We think that at this time the conviction, that we have too much neglected our agricultural and manufacturing interests, cannot become too prevalent; and we therefore regard every new publication, having in view the diffusion of knowledge on these interesting subjects, as an acquisition in the promotion of the welfare of our country. Knowledge is power. Let us become duly enlightened in regard to our cardinal interests, and we shall of course become more powerful as we are more enlightened.

Extraordinary Oxen.—"There is no doubt (says a writer, in a Goshen paper, signed *an agriculturist,*) but that the best pair of oxen ever fatted in the U. States are now in the possession of Mr Philip Fink, in the town of Goshen, The beef of one of them is estimated at 2000 pounds." These oxen, last fall entitled the owner to the silver medal, from the agricultural society of Orange county. In the 8th No. of the *Plough Boy*, was republished from the *American Farmer*, an account of two oxen, one of which weighed 2,900, and the other upwards of 2,700 pounds.

Upwards of 12,000 dollars, in private donations, beside supplies of provisions &c. have been collected in the city of New-York for the relief of the sufferers at Savannah.

The citizens of Augusta, Geo. have collected and forwarded 6,865 dollars for the relief of the sufferers at Savannah. A resolution has been offered in the legislature of Pennsylvania for appropriating 10,000 dollars from the treasury of the state, for the same purpose. The governor of Georgia has, on his own responsibility, advanced 10,000 dollars from the state treasury, for the like purpose. The Commercial Advertiser observes that from information from different quarters considerable relief will be afforded the sufferers in the way of charitable donations. From Philadelphia alone 6,000 dollars have been raised.

At the U. S. armory at Springfield (Mass.) there is about 250 men employed. About 45 muskets are made daily. Since the erection of the establishment up to the begining of the present year there has been made of muskets 152,559, of carbines 1,202, of muskets repaired 46,414.—The expense of erecting the buildings &c. is estimated at 166,136 dollars, and the whole expense of the establishment 2,072,670 dollars.

From the Essex Register we learn, that the Swede arrested at Portland on suspicion of being one of the Stoneham murderers, is safely lodged in Concord jail.

On the 12th inst. a snow fell of about the depth of 3 feet, at Providence, R. I. and was drifted up in piles from 5 to 10 feet high. It is stated to be the 23d snow that has fallen there during the present year.

In the Legislature of New-Jersey the jurisdiction bill or steam-boat question, was lost by a small majority. The object of the bill was to exclude our steam-boats from the navigable streams of New-Jersey, as long as the steam-boats of that state are excluded from navigating the waters of this state.

A bill to incorporate a company for making a canal from the navigable waters of the Raritan to those of the Delaware, is now before the legislature of New-Jersey.

We understand, says the Democratic Press, of the 13th inst. that a ship and a brig are now in port, and chartered by the U. S. government, for carrying troops and military stores to Mobile.

A cabin near Pittsburgh, Pen. was destroyed, last month, by fire, and with it three children, and a fourth so much burnt as to be past all hope of recovery.

A Zanesville (Ohio) paper of the 26th ult. says another silver mine has been discovered in that state on the Wabash, near Tippacanoe, out of which 400 lbs of silver, and 300 of copper, extracted in one day.

From the Augusta Chronicle of February 1st, we learn that, a day or two previous to the account, two black men were executed there, for the murder of their master. One was hung, and his head afterwards cut off; the other burnt.—The latter shot his master; the other was accessary to the act.

A Theatre has lately been built at New-Orleans, which surpasses any thing of the kind in the U. States. Agreeable to the customs of France, and Spain, customs which are still supported by a majority of the inhabitants of that place, the theatre is open, and most generally resorted to, every sunday evening, not only for plays, but for dancing, gaming &c. Similar to this was the practice in England, till the reign of Charles 2d. By a regulation of New-Orleans the mayor of the city is the manager of the theatre, a regulation supposed to be derived from Normandy.

FOREIGN.

The Baron De Paris Boisrowvray has submitted to the accademy at Paris his theory of the compass, which gives the longitude and latitude of the Globe, and has had the same presented to the board of admiralty of G. Britain.

The net receipts of a grand musical festival lately had at Edinburgh, for charitable purposes, amounted to a sum equal to 57,777 dollars 77 cents.

The mail coaches that arrived in London on the 29th December last were greatly retarded by the snow that had fallen in many parts of the country.

In London, during the last year, 24,300 were christened, and 19,228 buried.

Great alarm prevails in the manufacturing towns in the county of Yorkshire (Eng.) on account of the frequency of canine madness.

When Cobbett, since his return to England, first visited Botley, some of the populace drew him into the village.

Scientific men are now exploring the Brazil country, under the protection of the Portuguese, and at the expense of the Austrian, Bavarian, and Tuscan governments, the object of which is to obtain a knowledge of the plants, minerals, natural history &c. of that fertile and extensive country.

On the 2d instant, the ship Ceres arrived at Charleston, in 58 days from Gibraltar. No news of the great intended expedition from Cadiz, by her. Markets very dull, owing principally to long quarantines, &c. At Cadiz, 12,000 still sick. The plague, in Barbary, had considerably subsided. The new minister of Spain, for this country, had been to Madrid to kiss his majesty's hand, and take his instructions, &c.

PRESENT PRICES OF COUNTRY PRODUCE IN THIS MARKET.

FLOUR AND GRAIN.—Superfine flour $6—Rye flour $2 75 per bbl.—Indian meal $1 50 cwt.—Buckwheat flour $1 25 to $1 75 cwt.—Wheat 87 cents to $1 6 bush.—Rye 54—Corn 44—Oats 31—Flax-seed $1 50—Barley 75—Peas 50 to 62 1-2 per bush.

Beef, stall fed $6 cwt.—common beef $3 to $4 50—Pork $4 to 5, Mutton 3 to 4 cents per lb.

Hay, average, 37 1-2 cents per cwt.

Butter 10 to 12 cents per lb.—Cheese, good, $6 per cwt.—Cider $ 2 per bbl.—Potatoes 30 cents per bushel.—Common Turnips, 25 cents.

LUMBER.—Pine plank 14 cents—white p. do. 18—do. boards, good, $2 100 ft. com. $1 do.—Shingles, good, $1 50 per bundle.

Albany, Feb. 25, 1820.

PROPOSAL

Of Daniel Steele, for publishing by subscription, a new work, to be entitled,

The History of the Rise, Progress, and Actual State of the

WESTERN CANALS

IN THE STATE OF NEW YORK:

Commencing with the year 1788, and ending with the completion of the middle section of the new line of canals in 1819; together with estimates of the probable expense of completing this great work, with remarks, &c. &c.—And of the rise, progress, and actual state of

AGRICULTURAL SOCIETIES,

On the modern system, commencing with the year 1808, and ending with the establishment of the Board of Agriculture at Albany, January 10, 1820. Embellished with a correct map, designating the track of the old and new canals, and the water levels from Lake Erie to the Hudson. Also two engravings in connection with Agriculture.

BY ELKANAH WATSON.

Conditions.—1. This work will contain about 200 octavo pages. 2. It shall be handsomely printed on superfine vellum paper, with a new type. 3. It shall be delivered to subscribers at one dollar and fifty cents, neatly bound in boards. 4. It shall be put to press as soon as 300 subscribers are obtained.

New plates having been added, especially a plan of a spacious harbour between Lake Erie and Grand Island, as projected by James Geddis, Esq. (principal engineer of the northern canals) the price of this work is necessarily enhanced. All persons who have subscribed at one dollar, and shall claim their books at the store of Daniel Steele in Albany, on, or before the 1st September next, will receive them in conformity to said subscription. Albany February, 23d, 1820.

PRICE CURRENT.

Corrected Weekly, from the New-York General Price Current and Public Sales Report.

	Per	From D.	From C.	To D.	To C.	Remarks
ASHES, Pot	Ton	115		116	25	Dull.
—— Pearl		117				"
BEEF, Mess	bbl	10	25	10	50	
—— Prime		8	37			
—— Cargo		6	25			
BUTTER, first quality	lb		15		16	
—— for exportation			9		11	
CANDLES, mould			18		19	
—— Dipped			17			
—— Sperm.			44		45	
—— Wax			60			
CHEESE, American			6		7	
CHOCOLATE, New-York			17		24	
—— Boston, No. 1.			17		24	
—— Albany			20		25	
DOMESTIC GOODS,						
—— White shirting	yard		14		18	
—— Brown do			12		13	
—— 3-4 checks			16		18	
—— 7-8 do			21		22	
—— 4-4 do			24		27	
—— Stripes			16		18	
—— Plaids			16		20	
—— Bed-ticks			28		36	
—— Chambrays			14		15	
FEATHERS	lb		55		62	
FISH, Dry Cod	cwt	2	50	2	87	
—— scale		2				
—— Pickled Cod	bbl	3	50	4		
—— scale		2				
—— Salmon		15				
—— Fall mackrel No. 1		8		8	75	
—— —— No. 2		5	50	6		
—— —— No. 3		4	50	5		
—— Southern shad No. 1		5	50	7		
—— Connecticut mess shad		10	50	11		
—— Herrings		2	50	3		
FLAX	lb		16		18	
FLAX-SEED, clean	cask	13		13	50	
—— rough		12		13		
FLOUR & GRAIN						
—— New-York superfine	lb.	5	87	6		
—— Philadelphia		6	50	6	75	
—— Baltimore		6	62		75	
—— Richmond		6		6	25	
—— Middlings, fine		4		4	75	
—— Rye flour		3	62			
—— Indian meal		3	75	4		
—— —— in hogsheads	800	18		19	50	
—— Wheat, North River	bus.		87	1		
—— —— Southern, new		1	9	1	10	
—— Barley			65		68	
—— Oats			40		49	
GLASS, Amer. 7 by 9	box	9				
—— 8 10		10				
—— 10 12		12		12	50	
GLUE	lb		12		13	
GUN-POWDER, Amer.	25lb	5		6		
—— Cannon		6		6	50	
HAMS, Virginia	lb		10		12	
—— North River			9		11	
HEMP, Water rot	Ton					None.
—— Dew rot		150				Scarce.
HOGSLARD	lb		11		12	
HONEY			15		16	
HOPS 1st and 2d sort			6		8	
IRON, American	Ton	85		90		
LUMBER, Boards, oak	Mft	18				
—— North River pine		16		17		
—— Yellow pine		18		20		
—— Albany pineb'ds	pie.		18			
—— Scantling, pine	Mft	14		15		
—— —— oak		25				
—— Oak timber	sd.ft		20		25	
—— Shingles, cypress	1000	4				
—— —— pine		3		3	50	
—— Staves, pipe		60				
—— —— hhd		46				
—— —— bbl		28				
—— —— R O hhd		28				
—— Hhd heading		54				
—— —— hoops		25		30		
OIL, Linseed	gal	1				
PLAISTER of PARIS	Ton	4	50			
PORK, Cargo	bbl	10	50			
—— Prime		12	25	12	50	
—— Mess		14	75	15	25	
SOAP White			13		15	
—— Brown			9		11	
WAX, Bees, white			55		60	
—— —— yellow			31		32	

New-York, February 18, 1820.

POETRY.

FOR THE PLOUGH BOY.

Mr. Editor,

You are doubtless willing to present your readers with a variety. That the following lines possess any poetical merit I dare not presume; but that the sentiment will come home to the bosom and experience of many of your readers, I cannot doubt. Should you judge them worthy of insertion in any respect, please to give them a place in your paper, and oblige yours, &c. A. Z.

THE VANITY OF ALL WORLDLY HOPE.

To shroud the dreadful surges of despair,
The waves of hope dance o'er the deeps of woe;
Elating mortals to a giddy height,
To plunge them deeper in the gulph below.

So vernal suns, the tender buds unsheath,
And gently soothed, the guileless flowers unfold;
Expand a moment, in the fickle rays,
Then wither, blighted by the chilling cold.

The beams of morning, blushing on the day
With roseate hue, and unsuspected smiles;
But add more horrors to the tempest's gloom,
Which oft detects their false, deceptive wiles.

Young, hope and fancy paint each future scene,
In all the charms which love and friendship wear;
The seasons fly:—and quick experience brings,
Instead of joys—the anguish of despair.

Lo, Slander's victims!—Envy's—Hatred's spoil!
Doomed by injustice, all their days to mourn;
Though Truth and Honor kindly join to guard
Their cautious steps to Wisdom's promised bourne.

From the foul blight, detraction's lips disclose,
Th' envenomed shafts that hate and malice wield;
No innocence—*Not* Virtue's dearest fame,
Nor the best gifts, kind Heaven bestows, can shield.

"But, *Friendship's charms?*"—Full well their worth I know,
Their varied worth. Ah! know them to my cost;
More cruel now, than all my sufferings else,
As they exceed all other blessings—lost.

In early youth, the simple path I chose,
Of truth sincere; nor learned my feet to stray,
And fondly sought, but vainly hoped to find,
The calm of peace in truth's undevious way.

What mighty scenes, shall future years disclose,
Of solid good—of bliss without alloy;
To ease the pains my wounded bosom feels,
To soothe a wretch, bereft of every joy!

I cannot more, delusive hope, indulge
Thy syren charms—the bane of all my peace;
No—let the pangs that pierce my bleeding heart,
Strike deeper still! and never, never cease.

Sov'reige Power! since 'tis thy holy will—
My portion, sorrow—O I do submit;
Nor crave thy mercy—but to say—"*Father, Be all thy pleasure done, without regret:*"

A. Z.

From Darby's tour it appears that the medium depths of lakes Huron, Superior and Michigan are each about 900 feet; of Erie, 120 only; and of Ontario, 492. Huron is estimated at 812 miles in circumference; Superior, 1,152; Michigan, 731. Greatest length of Huron, 218 miles; greatest breadth, 160. Greatest length of Superior, 381; breadth, 161. Length of Michigan, 262; breadth, 65.

On the 28 ult. the house of Austin Kellog, of Smithfield, Pen. was destroyed by fire, together with his wife, and child of only about 5 weeks old. Mrs. Kellog was hatchelling flax near the fire, when a coal snapped out into this combustible material, which, it seems, enveloped her too suddenly in the flames to admit of the escape of her and her child. This disastrous event is pregnant with this useful lesson; beware of being too near a large *open* fire, when hatchelling flax. *Open* fires are certainly much more *dangerous*, and much more *expensive* than the various sorts of stoves, invented for cooking, and for warming of rooms, as now considerably used in the more northerly regions of this country, and there can be no doubt that stoves are equally as healthy as open fire places.

Sale of Land for Taxes.

State of New-York—Comptroller's Office.

PUBLIC Notice is hereby given, that lists of certain lands liable to be sold for taxes, have been forwarded to the several counties in this state, in order to be deposited in the several county treasurers' and town clerks' offices, respectively, for the information of all persons concerned; and that the said lists may be examined at either of the said offices, at all reasonable hours: And notice is hereby also given, that on *Thursday, the seventh day of October next*, at ten o'clock in the forenoon, at the capitol, in the city of Albany, and on the next succeeding days, I will sell at public auction to the highest bidder, so much of each lot, piece or parcel of land mentioned and described in the said lists, as will be necessary to pay all taxes, interest and charges now due, or that may grow and may be due thereon at the time of sale.

The conditions of sale will be, that the purchasers within forty-eight hours after the sale, pay the purchase moneys and receive certificates of their purchases: and that after the expiration of two years from the date of their certificates, they receive conveyances for the lands purchased by them respectively, unless the owners, or those claiming to be such, of the lands so purchased, shall, previous to the expiration of the said two years, pay to the comptroller, for the use of the said purchasers, their heirs and assigns, the amount of the purchase moneys, with interest, at the rate of twenty per centum per annum.—The lands sold to be subject to all claims of the state thereon. And in case any land to be purchased at the said sale and that may be conveyed in pursuance thereof, shall at the time of conveyance be in the actual possession and occupancy of any person or persons, the title of the purchaser shall then and in that case be subject to the stipulations and provisions of the fifth section of the act, entitled "an act to repeal in part the act, entitled "an act providing more effectually to ascertain and determine the true value of real estates within this state, and for other purposes," and further to amend the act for the assessment and collection of taxes" passed April 13, 1819.

ARCH'D. M'INTYRE, Comptroller.

Albany, May 27th, 1819

☞ Persons who may have made payments into the treasury for taxes, and omitted to have their receipts presented at the comptroller's office to have them entered and countersigned as required by law, are advised to present them in order to be so entered and countersigned before the day of sale; or that in case of failing to do so, their lands will be sold, and they thereafter be deprived of the benefit of all such payments.

Payments for taxes cannot be received on the days of sale, nor for two days prior to the sale.

☞ **The above mentioned sale is postponed untill Tuesday, the eighth day of February next, at ten o'clock in the forenoon.**

ARCH'D M'INTYRE, *Comptroller.*

Albany, October 2, 1819.

☞ **Agreeably to an act of the legislature, passed this day, the above sale is further postponed until the first Tuesday of February, in the year 1821, to be then held at the same place and hour.** ARCHD. M'INTYRE, *Comptr.*

Albany, February 4, 1820.

ALBANY: PRINTED FOR THE EDITOR,

BY JOHN O. COLE.

☞ COMMUNICATIONS, SUBSCRIPTIONS, and ADVERTISEMENTS, for this paper, and PRINTING JOBS, of every description, which will be neatly executed, at fair prices, received at the Post Office. All letters from abroad, directed to the Postmaster, Albany, will be duly attended to.

TERMS.

THREE DOLLARS PER ANNUM, PAYABLE IN ADVANCE.